

1. (Currently Amended) A computer-implemented method for inlining code of a computer program, comprising:

identifying a subprogram of the computer program; and

selectively inlining computer code of certain execution paths of the subprogram based on an inline directive included as part of a program comment statement associated with an execution path.

2. (Original) The method of claim 1 comprising identifying the subprogram based on execution characteristics of the subprogram.

3. (Original) The method of claim 1 wherein said step of selectively inlining is based on execution characteristics of the execution paths.

4. (Original) The method of claim 3 wherein the execution characteristics are based on the execution time for the paths.

5. (Original) The method of claim 4 wherein the execution characteristics are based on the frequency of execution of the paths.

Claims 6-9. (Canceled) ✓

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10. (Currently Amended) A computer program compiler for inlining computer program code, comprising:

a subprogram identification module that identifies subprograms of the computer code; and

a path identification module that selectively inlines computer code of certain execution paths of the subprogram based on an inline directive included as part of a program comment statement associated with an execution path.

Claims 11-13 (Canceled).

14. (Currently Amended) A computer-implemented method of determining whether to replace subprogram code of a computer program, comprising the steps of:
identifying a subprogram that has a first and a second execution characteristic;
replacing a portion of the subprogram that exhibits the first execution characteristic with program instructions that explicitly define the operations of the first execution characteristic; and

leaving intact a second portion of the subprogram that exhibits the second execution characteristic,

wherein the first and second execution characteristics are based on arguments operated on by the subprogram.

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15. (Currently Amended) The method of claim 14 wherein said second execution characteristic is an atypical characteristic associated with program code that requires special processing.

16. (Original) The method of claim 15 wherein said atypical characteristic is an execution time duration.

17. (Original) The method of claim 16 wherein said execution time duration exceeds a predetermined threshold.

18. (Currently Amended) The method of claim 17 wherein said first execution characteristic is a typical execution characteristic associated with program code that requires normal processing.

19. (Original) The method of claim 17 wherein said first and second execution characteristics are execution time durations.

Claim 20. (Canceled) ✓

21. (Currently Amended) The method of claim ~~20~~ 14 wherein the first and second execution characteristics are invoked based on conditional execution computer statements associated with the characteristics.

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22. (Currently Amended) The method of claim 14 19 wherein the first and second execution characteristics are invoked based on conditional execution computer statements associated with the characteristics.

23. (Currently Amended) A computer readable medium for inlining computer program code, which when executed by a computer, performs the steps of:

identifying a subprogram that has a plurality of execution characteristics;

inlining only a selected portion of the subprogram that corresponds to one of the execution characteristics,

wherein the selected portion is defined by a selected path of a plurality of execution paths that may be executed by the subprogram and the selected path is determined by identifying a non-executable statement configured to direct the computer to interpret at least a portion of the non-executable statement as a special directive.

Claims 24 and 25. (Canceled)

26. (Currently Amended) The medium of claim 25 23 wherein the directive program comment statement is included in the selected path.

27. (Original) The medium of claim 23 wherein the execution characteristics are identified by evaluating a conditional execution statement associated with a subprogram call.

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28. (Original) A computer-implemented method of replacing subprogram code in a computer system, comprising the steps of:

identifying a subprogram that operates in a first manner when operands passed to the subprogram fall within a first range of values and that operates in a second manner when operands passed to the subprogram fall within a second range of values; and

replacing subprogram statements that cause the subprogram to operate in the first manner with expanded code.

Claims 29-34. (Canceled) ✓

35. (Currently Amended) An apparatus having a processor and a memory containing programs for inlining code of a computer program which when executed using the processor perform steps comprising:

identifying a subprogram of the computer program; and

selectively inlining computer code of certain execution paths of the subprogram based on an inline directive included as part of a program comment statement associated with an execution path.

36. (Original) The apparatus of claim 35 wherein said subprogram is identified based on execution characteristics of the subprogram.

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37. (Original) The apparatus of claim 35 wherein said computer code is selectively inlined is based on execution characteristics of the execution paths.

38. (Original) The apparatus of claim 37 wherein the execution characteristics are based on the execution time for the paths.

39. (Original) The apparatus of claim 37 wherein the execution characteristics are based on the frequency of execution of the paths.

Claims 40-43. (Canceled)

44. (Currently Amended) An apparatus having a processor and a memory containing programs for determining whether to replace subprogram code of a computer program which when executed using the processor perform steps comprising:

identifying a subprogram that has a first and a second execution characteristic; replacing a portion of the subprogram that exhibits the first execution characteristic with program instructions that explicitly define the operations of the first execution characteristic; and

leaving intact a second portion of the subprogram that exhibits the second execution characteristic,

wherein the first and second execution characteristics are based on arguments operated on by the subprogram.

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45. (Currently Amended) The apparatus of claim 44 wherein said second execution characteristic is an atypical characteristic associated with program code that requires special processing.

46. (Original) The apparatus of claim 45 wherein said atypical characteristic is an execution time duration.

47. (Original) The apparatus of claim 46 wherein said execution time duration exceeds a predetermined threshold.

48. (Currently Amended) The apparatus of claim 47 wherein said first execution characteristic is a typical execution characteristic associated with program code that requires normal processing.

49. (Original) The apparatus of claim 47 wherein said first and second execution characteristics are execution time durations.

Claim 50. (Canceled)

51. (Currently Amended) The apparatus of claim ~~50~~ 44 wherein the first and second execution characteristics are invoked based on conditional execution computer statements associated with the characteristics.

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52. (Currently Amended) The apparatus of claim ~~54~~ 47 wherein the first and second execution characteristics are invoked based on conditional execution computer statements associated with the characteristics.

53. (Original) An apparatus having a processor and a memory containing programs for replacing subprogram code in a computer system which when executed using the processor perform steps comprising, comprising the steps of:

identifying a subprogram that operates in a first manner when operands passed to the subprogram fall within a first range of values and that operates in a second manner when operands passed to the subprogram fall within a second range of values; and

replacing subprogram statements that cause the subprogram to operate in the first manner with expanded code.

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